

Abstract

Described is a method for methylation detection in a DNA
5 sample. An isolated genomic DNA sample is treated in a
manner capable of distinguishing methylated from
unmethylated cytosine bases. The pretreated DNA is
amplified using at least one oligonucleotide primer, a
polymerase and a set of nucleotides of which at least one
10 is labeled with a first type of label. A sequence-
specific oligonucleotide probe, marked with a second type
of label, hybridizes to the amplification product and a
FRET reaction occurs if a labeled oligonucleotide is
present in close proximity in the amplification product.
15 The method determines the level of methylation of a
sample by measuring the extent of fluorescence resonance
energy transfer (FRET) between the donor and acceptor
fluorophore.

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